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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,539	08/29/2000	Thomas G. Adams	19927-000510US	9913

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EXAMINER

TRAN, HAI V

ART UNIT - PAPER NUMBER

2611

DATE MAILED: 02/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/651,539

Applicant(s)

ADAMS ET AL.

Examiner

Hai Tran

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7, 8, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 11/26/03 have been fully considered but they are not persuasive.

Applicant argues, the newly added limitation "the associated program identifiers are used to index the elementary stream into a data structure maintained in a local memory..." is neither taught nor suggested in the prior art.

In response, the examiner cites Fujii (Fig. 15, el. "Program Map Table") AND (Fig. 14; elements 7, 14, 71, 121 and Fig. 15, el. S9; Col. 9, lines 23-34 and lines 47-65+; Col. 10, lines 1-5) to support.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6, 9-11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maturi et al. (US 5559999) in view of Fujii et al. (US 5898695).

Regarding claim 1, Maturi discloses a method for processing a transport stream (Summary of the Invention), the method comprising:

Parsing the transport stream to derive multiple elementary streams including associated program identifiers (Transport Stream Packet has a PID associate with it according to MPEG standard, Fig. 3; elements 22 and 24; Col. 5, lines 50-65);

Using the associated program identifiers to determine corresponding transfer locations in a host memory (PID is within PES header; Fig, 3, elements 20a-d; Col. 2, lines 65-Col. 3, line 1 and Col. 5, lines 53-65);

Maturi does not disclose "index the elementary into a data structure maintained in a local memory" and "Performing direct memory access transfers of the multiple elementary streams from the local memory to corresponding transfer locations in a host memory defined by the data structure."

Fujii (US 5898695) discloses index the elementary into a data structure maintained in a local memory (Fig. 15, el. "Program Map Table") and performing direct memory access transfers of the multiple elementary streams from the local memory to the host memory defined by the data structure (Fig. 14; elements 7, 14, 71, 121 and Fig. 15, el. S9; Col. 9, lines 23-34 and lines 47-65+; Col. 10, lines 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by implement a DMA transfers, as taught by Fujii (US 5898695), so to by pass the CPU thus increase the transfer rate of data between receiving device and the memory (Col. 9, lines 65-65+).

Regarding claim 2, Maturi further discloses transferring the multiple elementary streams to an end user system (user's television monitor or the like; Col. 6, lines 20- Col. 7, lines 9).

Regarding claim 3, Maturi further discloses wherein the end user system comprises an audio-visual system (user's television monitor or the like Col. 7, lines 4-5) and the step of transferring the multiple elementary streams to an end user system (user's television monitor or the like Col. 7, lines 4-5) comprises transferring the multiple elementary streams through an audio-visual interface (television/video and audio presentation unit; Fig. 3; Col. 6, lines 20-Col. 7, lines 9).

Regarding claim 6, Maturi further discloses wherein the step of using the associated program identifiers (PID is within PES header) to index the elementary streams comprises:

Buffering each elementary stream in a first-in-first-out module (Col. 5; lines 53-64); and

Indexing the buffered elementary stream in to the data structure according to a particular program identifier is further met by Fuji (Fig. 15, el. "Program Map Table"; Col. 10, lines (DRAM is initially partitioned into video header buffer 20a, a video channel buffer 20b, an audio header buffer 20c and an audio channel buffer 20d and a frame memory buffer 20e; see Col. 5, lines 45-50).

Regarding claim 9, Maturi discloses a system for receiving and processing a transport stream (Fig. 3), the system comprising:

A receiver 16 configured to derive multiple data streams and associated program identifiers from the transport stream (Transport Stream Packet has a PID associate with it according to MPEG standard, Fig. 3; elements 22 and 24; Col. 5, lines 50-65); and

Maturi does not discloses "to use the associated program identifiers to index the elementary stream into a data structure" and "A direct memory access transfer engine within the receiver, the DMA transfer engine being configured to initiate DMA transfers of the multiple data streams from the local memory to corresponding transfer locations in a host memory defined by the Data structure."

Fujii (US 5898695) discloses use the associated program identifiers to index the elementary stream into a data structure (Fig. 15, el. "Program Map Table") and a direct memory access transfer engine 121 within the receiver, the DMA transfer engine being configured to initiate DMA transfers of the multiple data streams (Fig. 12B) from the local memory to corresponding transfer locations (packet landing buffer 71; Fig.13-14) in a host memory (RAM 7; Fig.14) defined by the data structure (Fig. 13-14; elements 14, 71 and 121; Col. 9, lines 23-34 and lines 47-65+ and Col. 10, lines 1-5) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by implement a DMA transfers, as taught by Fujii (US 5898695), so to by pass the CPU thus increase the transfer rate of data between receiving device and the memory (Col. 9, lines 65-65+).

Regarding claim 10, Fujii (US 5898695) further discloses the system further comprising an interface (display interface unit 16; Fig. 16) connected to the receiver configured to transfer the multiple elementary streams to an end user system (external monitor and/or speaker Col. 10, lines 54-56).

Regarding claim 11, Fujii (US 5898695) further discloses wherein the end user system comprises an audio-visual system (external monitor and/or speaker Col. 10, lines 54-56) and the interface comprises an audio-visual interface (display interface unit 16; Fig. 16).

Regarding claim 14, Maturi further comprising a first-in-first-out module 20 within the receiver, the first-in-first-out module configured to buffer each elementary stream (Fig. 3; Col. 5; lines 53-64),

Wherein the receiver is configured to index the buffered elementary stream into the data structure according to a particular program identifier is further met by Fuji (Fig. 15, el. "Program Map Table"; Col. 10, lines (DRAM is initially partitioned into video header buffer 20a, a video channel buffer 20b, an audio header buffer 20c and an audio channel buffer 20d and a frame memory buffer 20e; see Col. 5, lines 45-50).

2. Claims 4-5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maturi et al. (US 5559999) in view of Fujii et al. (US 5898695), and further in view of Fujii et al. (US 6477179).

Regarding claim 4, Maturi and Fujii (US 5898695) do not clearly disclose wherein the end user system comprises a networked computer and the step of transferring the multiple elementary streams to an end user system comprises transferring the multiple elementary streams through a network interface.

Fujii (US 6477179) discloses wherein the end user system comprises a networked computer and the step of transferring the multiple elementary streams (digital data stream) to an end user system comprises transferring the multiple elementary streams through a network interface (LAN Interface; Fig. 1-3 and 6; Col. 3, lines 55-Col. 4, lines 10 and Col. 7, lines 19-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Fujii (US 5898695) by integrating a network interface connected to a networked computer, as taught by Fujii (US 6477179), so the receiving device outputs digital data received through, for example, a digital satellite broadcast network to a network computer (Col. 1, lines 6-10).

Regarding claim 5, Maturi and Fujii (US 5898695) and Fujii (US 6477179) do not clearly disclose the network computer comprises a World Wide Web browser; However, Fujii (US 6477179) discloses that the personal computer is connected to a service provider of the Internet (Col. 3, lines 50-55).



Official Notice is taken that the user of a WWW browser for surfing the Internet is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi in view of Fujii (US 5898695) and Fujii (US 6477179) to have a network computer comprises a Web browser (i.e. Netscape) as claimed so that the user could take the advantage to browse the World Wide Web to obtain addition information beside TV programs.

Regarding claim 12, Maturi and Fujii (US 5898695) do not clearly disclose wherein the end user system comprises a networked computer system and the interface comprises a network interface

Fujii (US 6477179) discloses wherein the end user system comprises a networked computer and the interface comprises a network interface (LAN Interface; Fig. 1-3 and 6; Col. 3, lines 55-Col. 4, lines 10 and Col. 7, lines 19-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Fujii (US 5898695) by integrating a network interface connects to a networked computer, as taught by Fujii (US 6477179), so the receiving device outputs digital data received through, for example, a digital satellite broadcast network to a network computer (Col. 1, lines 6-10).

Regarding claim 13, Maturi and Fujii (US 5898695) and Fujii (US 6477179) do not clearly disclose wherein the end user system further comprises a WWW

browser. However, Fujii (US 6477179) discloses that the personal computer is connected to an Internet service provider through TCP/IP (Col. 3, lines 50-55).

Official Notice is taken that the user of a WWW browser for surfing the Internet is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi in view of Fujii (US 5898695) and Fujii (US 6477179) to have a network computer comprises a Web browser (i.e. Netscape) as claimed so that the user could take the advantage to browse the World Wide Web to obtain addition information beside TV programs.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Fax Information**

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or Faxed to: (703) 872-9306**

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121  
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (703) 308-7372. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

HT:ht  
02/06/2004

  
**VIVEK SRIVASTAVA**  
**PRIMARY EXAMINER**